ABSTRACT

In a method for increasing the power output of a combined-cycle power station, comprising at least one gas turbo group, at least one heat recovery steam generator and at least one steam turbo group, with the gas turbo group comprising at least one compressor, at least one combustion chamber and at least one gas turbine, the heat recovery steam generator having at least one pressure stage and the steam turbo group comprising at least one steam turbine, in which combined-cycle power station air is compressed in a compressor, is then supplied as combustion air to a combustion chamber, the hot gas which is produced there is passed to a gas turbine, and the exhaust gas from the gas turbine is used in a heat recovery steam generator to produce steam for a steam turbo group, an immediate and rapid increase in the power output is achieved, and an additional power output from the combined-cycle power station is maintained in safe operating conditions, in that an supplemental firing is arranged to provide additional heating for the exhaust gas from the gas turbine and in that the combustion chamber or the gas turbo group is supplied with more fuel, and the supplemental firing is switched on at the same time, for immediately, rapidly and temporarily increasing the power output of the combined-cycle power station, and in that the power output of the gas turbo group is reduced again to the extent that the additional steam power produced as a result of the supplemental firing is also provided via the steam turbo group as power.

Figure 2